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From: Brush, Jason
Sent: Fri 12/4/2015 11:42:01 PM
Subject: Biodiversity at Rosemont

Here's an excerpt from a publication (cited at bottom) from U of A, done under cooperative agreement with BLM, which manages the Las Cienegas National Conservation Area. Not your average aquatic assemblage for the desert! -JB

Ciénega Creek at Empire Ranch is the most intact lowland aquatic habitat in southern Arizona. It retains the largest, and only substantial, remaining population of Gila topminnow (*Poeciliopsis occidentalis*) in the United States, and also supports a strong population of Gila chub (*Gila intermedia*), both species receiving protection under the Endangered Species Act. A third native fish species, the longfin dace (*Agosia chrysogaster*), also thrives at the site. The Mexican garter snake (*Thamnophis eques*), which has declined or disappeared throughout its range in the United States, also appears to retain its strongest United States population at Ciénega Creek. The site retains a breeding population of the threatened Chiricahua Leopard Frog (*Rana chiricahuensis*), apparently the only one remaining in lowland ciénegas that were probably its historical core habitat in southeastern Arizona. Formerly, this frog overlapped here with its congener, the Lowland Leopard Frog (*R. yavapaiensis*). The Sonoran Mud Turtle (*Kinosternon sonoriense*) also occurs at Empire Ranch, rounding a full complement of the aquatic vertebrates originally inhabiting the ciénegas of southern Arizona.

The riparian environment rivals that seen at Tucson prior to 1900 (Swarth, 1905; Ruthven, 1907; Willard, 1912; Van Denburgh and Slevin, 1913; Brandt, 1951), probably the region's richest; no other known remaining site approaches this. The creek and ciénega support outstanding examples of cottonwood-willow gallery forest, mesquite bosque, and big sacaton bottoms (Hendrickson and Minckley, 1985). These are home to bird species that have become rare through loss of riparian habitats, including the Southwestern willow flycatcher (*Empidonax traillii*), Bell's vireo (*Vireo bellii*), and a great diversity of others. Important lowland populations of riparian and xeroriparian amphibians and reptiles are also known on site. Included in this group are several toads, the checkered garter snake (*Thamnophis marcianus*), Madrean alligator lizard (*Elgaria kingii*), southern plateau lizard (*Sceloporus undulatus consobrinus*), and the giant spotted whiptail (*Cnemidophorus burti stictogrammus*). There are, without doubt, a number of other important amphibian and reptile species populations yet to be found centered within the Ciénega Creek riparian area and in the surrounding sacaton grassland. These three elements, the aquatic, the riparian, and the grassland, are, in the listed order, the most threatened elements of our biota in southern Arizona. Ciénega Creek is a conservation resource equal to any other in the region.

**AQUATIC AND RIPARIAN HERPETOFAUNA OF
LAS CIENEGAS NATIONAL CONSERVATION AREA,
EMPIRE-CIENEGA RANCH, PIMA COUNTY, ARIZONA**

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Final Report to:

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For Cooperative Agreement AAA000011

Task Order No. 6 (BLM, AZ State Office – CESU-FLPMA, University of Arizona)

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